

REMARKS

Status of the Claims

Claims 1 and 3-27 are pending in this application.

Claims 1 and 3-27 are rejected.

Claims 18 and 19 have been amended. Support for these amendments can be found throughout the specification, claims, and drawings, as originally filed.

Rejection of Claims 15-23 Under 35 U.S.C. § 112

Claims 18-20 were rejected under 35 U.S.C §112 second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Office Action indicated that with regard to claim 18, it remains "unclear how 'light emitted from an LED in front of said light-directing element passes through said light-directing element and contacts said annular reflector,' while at the same time 'light emitted from an LED positioned between said [SAME] annular reflector and behind said [SAME] light-directing element contacts said [SAME] annular reflector.'" Claims 19-20 were rejected due to dependency.

Applicants respectfully request the removal of the rejection under 35 USC §112. Claim 18 has been amended to include in pertinent part "the light-directing element further comprises two or more reflection surfaces configured in the light-directing element, and the annular reflector is located behind the light-directing element in beam direction and light emitted from an LED in front of said light-directing element passes through said light-directing element between the two or more reflection surfaces." This amendment refers to the light-directing element having two or more reflective surfaces

that are spaced to allow some light to pass through the light-directing element and contact the reflector.

Rejection of Claims 1 and 3-5, 7-9 and 13 Under 35 U.S.C. § 102(e)

Claims 1 and 3-5, 7-9, and 13 of the present application were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,598,998 issued to West et al.

(hereafter West). The Office Action indicated that West discloses:

A lamp including: a housing [Figures 5A, 12: (40)] in which at least one light source [Figure 5A,12: (52)] is arranged, wherein the at least one light source is an LED [Column 3, Lines 27-41]; a light conducting element [Figure 5A: (44); Figure 12: (144)] having a double cone shape, which surrounds the LED, causing light emitting from the LED to be emitted in a lateral direction; and at least one reflection part [Figure 12: (102)] associated with the light source, wherein the at least one reflection part adjoins and surrounds the LED in the same plane and has a height that is less than or equal to the LED.

Applicants now respectfully traverse the rejection of claim 1 and maintain that West does not anticipate each and every element of claim 1. Claim 1 of the present invention discloses at least one reflection part adjoining and surrounding the LED in the same plane and having a height that is less than or equal to the LED. West does not disclose this element. West discloses a side emitting Light Emitting Diode (LED) package having “a longitudinal package axis, and LED package axis, and a lens.” Col. 3, Lines 23-24. West also describes how the LED emits light perpendicular to the longitudinal axis package, and how “a shallow, large area reflector can be used in combination with a side emitting LED package to emit light over a broader area than a conventional LED package.” Col. 7, Lines 8-11. The Office Action relied upon Figure 12 which Applicants have marked up and attached as Exhibit A to this response. In Figure 12, West shows an LED 144 having a reflector 102 having a height greater than

the LED. As shown in Exhibit A Applicants have placed two lines (labeled as A) defining the height of the LED and two lines (Labeled as B) defining the height of the LED. It is clearly shown that the height of the reflector is greater than the height of the LED. Additionally there is nothing in the specification or drawings of West which discloses the height of the reflector being less than or equal to the height of the LED. Thus, West does not disclose each and every element of Claim 1 and removal of the rejection and allowance of claim 1 is respectfully requested.

The Office Action also stated that the West reference discloses "the reflection part further comprising an annular reflector [Figures 12: (102)]" in claim 3, "the reflector [Figure 12: (102)] comprising a parabolic configuration" in claim 4, "the LED [Figure 5A: (52); Figure 12: (144)] being arranged at the focus of the reflector" in claim 5, "the reflection part including a light directing element [Figure 12: (102); Column 7, Lines 8-29]" in claim 7, "the light directing element having a circular outline and at least one light exit side [Figure 12: as defined by the edges of (102)]," in claim 8, "the light-directing element including a central aperture in which the LED is located [Figure 12: (40)]," in claim 9, and "the outside of the light conducting element being provided with at least one reflection layer [Figure 12: (120)], applied by vapor disposition [Column 7, Lines 23-27]," in claim 13. Claims 3-5, 7-9, 13 all have the limitation of a reflector having a height that is less than or equal to the height of the LED, based on their dependency upon claim 1. Since West does not disclose this limitation the rejection of claims 3-5, 7-9 and 13 would fall.

Rejection of Claims 6, 10-12, 14-17, 21-23 and 26-27 Under 35 U.S.C. § 103(a)

The Office Action indicated that claims 6, 10-12, 14-17, 21-23 and 26-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No.

6,598,998 to West et al. (hereafter West) as applied to Claims 3, 7, and 1 respectively above and further in view of U.S. Patent No. 6,773,154 to Desai (hereafter Desai). In order for a proposed combination of references to be relied upon, a person having ordinary skill in the art at the time of the invention must have been motivated to combine the references based upon the teachings of those references.

Applicants point out that claims 6, 10-12, 14-17, 21-23 and 26-27 are dependent claims which ultimately depend on claim 1 of the present application; therefore, the combination of West in view of Desai must render claim 1 of the present invention obvious.

At the outset Applicants note that claims 10-12, 14-17, 21-23 and 26-27 were previously rejected under 35 U.S.C. 103(a) as being obvious by the exact same references asserted in the present rejection (i.e., West in view of Desai). Applicants' response filed on August 25, 2005 contained the Declaration under 37 CFR § 132 of Otto Muller. Mr. Muller's declaration explained that claims 1, 10-12, 14-17, 21-23 and 26-27 could not be rendered obvious by the West in view of Desai. A copy of the previously filed declaration is attached as Exhibit B to this office action. In particular the declaration points out that West does not teach or suggest a reflective surface that is equal to or less than the height of the LED. Exhibit B Declaration ¶¶ 7 and 9. Claims 10-12, 14-17, 21-23 and 26-27 all contain the limitation of a reflective element having a reflective surface that is equal to or less than the height of the LED. Additionally Applicants response to the 35 USC 102(e) rejection outlined above further underscores this argument by showing how FIG. 12 of West does not show a reflective element having a height equal to or less than the height of the LED. See Exhibit A FIG 12 of West. With regard to the Desai reference, the declaration points out that this patent

teaches a high mount stop lamp that does not teach or suggest a reflective element that is less than or equal to the height of the LED. Exhibit ¶s 6 and 8.

With regard to claim 6 Applicants point out that this claim also contains the limitation of the reflector having a height that is less than or equal to the height of the LED. Since West in view of Desai does not render this portion of claim 6 obvious the Applicants request removal of the rejection.

Rejection of Claims 24-25 Under 35 U.S.C. § 103

Claims 24-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over 6,598,998 to West et al. (hereafter West) as applied to claim 1, and further in view of U.S. Patent No. 5,136,483 to Schoniger et al. (hereafter Schoniger). With regard to claims 24-25, the Office Action states that

West discloses the claimed invention as cited above, but does not specifically teach the reflection part having a cooling member located on the underside thereof (re: Claim 24), nor said cooling member at least partially covering the underside of the reflection part (re: Claim 25). Schoniger discloses a reflector [Figure 3: (16)] with cooling members located and partially covering the underside thereof [Figure 3: (19)]. It would have been obvious one ordinarily skilled in the art at the time of the invention to modify the reflection part of West to incorporate the cooling members of Schoniger to ensure proper heat distribution for the LED and illumination efficiency.

Applicants respectfully point out that a similar rejection made in a previous Office Action dated May 23, 2005, where these claims were rejected West in view of Desai and further in view of Schoniger. The present Office Action removed the Desai reference from the rejection. Applicants maintain that the proposed combination of references fail to render obvious claims 24 and 25. Applicant points out that claims 24 and 25 are dependent claims which ultimately depend on claim 1 of the present

application; therefore, the combination of West in view of Schoniger must render claim 1 of the present invention obvious.

Applicants submit that claim 1 is not rendered obvious by West in view of Schoniger. Claim 1 states in pertinent part “wherein said at least one reflection part adjoins and surrounds said LED in the same plane and has a height that is less than or equal to said LED.” Claim 1. West does not teach or suggest a reflector that has a height that is less than or equal to the height of the LED. Figure 12 of the West reference shows a reflector 102 that does surround the LED, but has a height that is greater than the LED, and no where does West teach or suggest the limitation of a reflector that has a height less than or equal to the LED. See Exhibit A Fig. 12. The Schoniger reference discloses a reflecting layer 16 in Fig. 2 and 3, but the reflecting layer 16 has a height that is greater than the LED 14, no where in the Schoniger specification is it taught or suggested that the height of the reflector is less than or equal to the height of the LED. Therefore, the Schoniger patent in combination with West fails to render the proposed combination of elements of claims 24 and 25 obvious. Applicants respectfully request the removal of the rejection of claims 24-25.

CONCLUSION

It is respectfully submitted that in view of the above amendments and remarks the claims 1 and 3-27, as presented, are patentably distinguishable because the cited patents, whether taken alone or in combination, do not teach, suggest or render obvious, the present invention. Therefore, Applicants submit that the pending claims are properly allowable, which allowance is respectfully requested.

The Examiner is invited to telephone the Applicants' undersigned attorney at
(248) 364-4300 if any unresolved matters remain.

Respectfully submitted,

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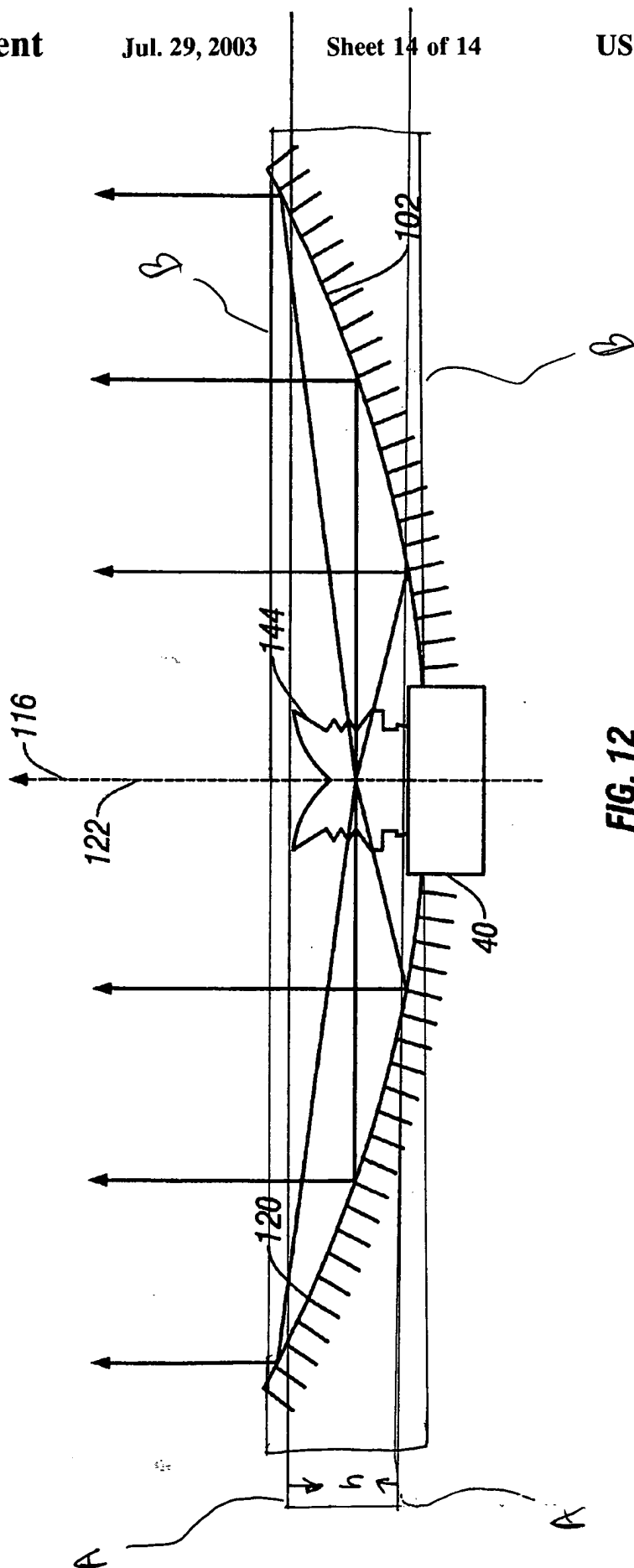


FIG. 12

**PATENT****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/691,062
Filing Date: October 22, 2003
Applicant: Otto Rolf Mueller et al.
Group Art Unit: 2875
Examiner: Jason M. Han
Title: VEHICLE LAMP
Attorney Docket: SCH-00076 / LIP 02-045

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 CFR §132

Sir:

Otto Müller (Please print your name) declares as follows:

1. I am the inventor of the subject matter of the above identified patent application.

2. I received a Maschinenbau Techniker
Berufsfachschule Göppingen
(Please fill in your educational background, i.e., degrees and what institution you received them from).

3. I have been employed with Schefenacker Vision Systems Germany GmbH & Co. KG for the past 12 years working in Lighting development. (Please fill in the areas in which you have worked in at Schefenacker Vision Systems). My working life has been spent in the development. (Please fill in the areas in which you have worked prior to working at Schefenacker Vision

Systems). I am listed as an inventor on the following patent(s) US 6,854,843

relating to

4. I have reviewed the Examiner's Office Action dated May 8, 2005 and U.S. Patents No. 6,598,998 Issued to West et al. (hereafter the '998 patent), No. 6,773,154 issued to Desai (hereafter the '154 patent), and No. 4,628,422 Issued to Ewald (hereafter the '422 patent) which were used as a basis for rejecting claims 1, 3-6, 7-18, 21-23, and 26-27 in the application.

5. Claims 1, 7-18, 21-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the '998 patent in view of the '154 patent.

6. The '154 patent discloses an exterior automotive lighting device referred to as a "high mount stop lamp." The '154 patent has retroactive optics for distributing light in multiple directions. The '154 patent also has a reflector having steps which "reflect light rays and/or emitted photons substantially perpendicular to an incident direction to the emitted photons." Col. 3, Lines 54-56. The '154 patent also describes how a "single Light Emitting Semiconductor Device (LESD) is mounted within the high mount stop lamp." Col. 3, Lines 57-60.

7. The '998 patent discloses a side emitting Light Emitting Diode (LED) package having "a longitudinal package axis, an LED package base, and a lens." Col. 3, Lines 23-24. The '998 patent describes how the LED emits light perpendicular to the longitudinal axis package, and how "a shallow, large area reflector can be used in combination with a side-emitting LED package to emit light over a broader area than a conventional LED package." Col. 7, Lines 8-11.

8. The purpose of my invention is to provide compact LED, where the overall height of the reflective surface is equal to or less than the height of the LED. The '154

patents disclose a reflective surface that is greater than or equal to the height of the LED. Figure 1, Col. 3, Line 39.

9. One of ordinary skill in the art at the time my invention was filed would not have been motivated to modify the '998 patent or the '154 patent to include a reflective surface having a height the less than or equal to the height of the LED.

10. With regard to the '422 patent, claim 1 of my patent application discloses a light source as an LED having a light conducting element in the shape of a double cone, which works in conjunction with a reflective surface. The '422 patent has an LED which emits light in all directions for use in illuminating a display and has no double cone.

11. One of ordinary skill in the art at the time my invention was filed would not be motivated to modify the '422 patent or combine the invention in the '422 patent with the '998 patent or the '154 patent for the purpose of rendering Claim 1 of my invention obvious.

12. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that theses statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-referenced application or any patent issuing thereon.

Date: 09.08.05

By: Otto Müller
(Signature)

Otto Müller
(Please print name)